

**REMARKS**

Claims 1-30 are pending in the present application.

Applicants' representative respectfully requests entry of the amendments above instead of the previously unentered amendments accompanying the Reply to the Final Office Action.

Claims 1, 7, 12, 18, 24, and 26-30, have been amended. Claims 22, 23 and 25 have been canceled without prejudice. Thus, after the amendments, claims 1-21, 24, and 26-30 will remain pending.

**I. Rejection of Claims 1-10, 12-14, 18-21 and 24-30 Under 35 USC § 103(a)**

Claims 1-10, 12-14, 18-21 and 24-30 are rejected under 35 USC § 103(a) as being unpatentable over Rouffet *et al.* (US 5,410,731), in view of Farrell (EP 1 065 806).

The present invention is a method and apparatus for providing multi-beam satellites for providing adequate beam coverage for a service area. The method and apparatus provides a built in back up or redundant system to continue the coverage in the event there is a failure in the primary system with a back up satellite. Both primary satellite(s) and back up satellite(s) continuously project beams. The back up system is accomplished by redirecting the beams of the back up satellite from its initial projection path to the failed satellites path. (*See* page 10 at paragraph [0047]).

To this end, claim 1, for example, as amended recites, “*n* back up satellites, each equipped to project *N/m* beams onto the area, *wherein the back up satellites continuously project the N/m beams at the n back up satellites full capacity*, to enable each of the *n* back up satellites to be able to replace any one of the *m* primary satellites on demand, *n* being an integer equal to or greater than 1.”

The Examiner admits Rouffet *et al.* does not teach the recited *n* back up satellites. *See, e.g.*, Office Action dated June 15, 2007, pg. 7. Thus, the Examiner relies on Farrell to teach this aspect. In Farrell's system, a backup satellite has its communication payload turned off until a primary satellite fails. Upon failure of a primary satellite, the backup satellite moves from a storage slot into a geostationary orbit and then turns on the communication payload. Abstract.

In Applicants' system, however, the satellites are projecting beams at all times. If a failure occurs in the primary satellite, the backup satellite's beam or beams are redirected to replace the beams not projected by the primary satellite due to the failure. In order to more clearly show this feature, the independent claims, such as claim 1 recited *supra*, have been amended to recite that both type of satellites are continuously operating at full capacity. Thus, with these amendments, the rejections have been obviated and the claims are now allowable for at least this reason.

**II. Rejection of Claims 11, 15, and 16 Under 35 USC § 103(a)**

Claims 11, 15 and 16 were rejected under 35 USC § 103(a) as being unpatentable over Rouffet *et al.*, in view of Farrell and in further view of Faineant *et al.* As discussed *supra*, Rouffet, alone or in combination with Farrell, does not teach or suggest every aspect of the independent claims upon which claims 11, 15, and 16 depend. Faineat *et al.* does not correct this deficiency.

Accordingly, withdrawal of this rejection is respectfully requested.

**III. Rejection of Claim 17 Under 35 USC § 103(a)**

Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Rouffet, *et al.*, in view of Farrell, and in further view of Faineant *et al.*, and in further view of Stetson *et al.* As discussed *supra*, Rouffet, alone or in combination with Farrell, does not teach or suggest every aspect of independent claim 12 on which claim 17 depends. Neither Faineant *et al.* nor Stetson *et al.* correct this deficiency.

Accordingly, withdrawal of this rejection is respectfully requested.

**IV. Rejection of Claims 22 and 23 Under 35 USC § 103(a)**

Claims 22 and 23 were rejected under 35 USC § 103(a) as being unpatentable over Rouffet, *et al.*, in view of Chandler. Claims 22 and 23 have been canceled. Thus, this rejection is moot.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [QUALP822USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,  
Amin, Turocy & Calvin, LLP

/Himanshu S. Amin/  
Himanshu S. Amin  
Reg. No. 40,894

Amin, Turocy & Calvin, LLP  
24<sup>TH</sup> Floor, National City Center  
1900 E. 9<sup>TH</sup> Street  
Cleveland, Ohio 44114  
Telephone (216) 696-8730  
Facsimile (216) 696-8731